

Section 3. Amendments to the Claims

Please cancel claim 33, add new claim 32 and amend claims 1-10 and 12-31 as set out below in the listing of claims 1-33 of the application:

1. (Currently amended) Apparatus for the storage of a protein (20) comprising a first compartment (30) for storing the protein (20) and a second compartment (40) for storing an alkaline buffer (50), the second compartment (40) being in fluid communication with the first compartment (30).
2. (Currently amended) Apparatus according to claim 1, wherein the alkaline buffer (50) contains calcium ions.
3. (Currently amended) Apparatus according to claim 1 ~~or 2~~, wherein the alkaline buffer (50) is selected from the group of alkaline buffers including ammonia solutions, ammonium acetate, ammonium formate, tris/HCl, HEPES, PIPES, sodium carbonate, potassium carbonate, sodium phosphate, potassium phosphate or a mixture of these.
4. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~, wherein the alkaline buffer (50) contains 50-700 mM calcium ions.
5. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~, where the alkaline buffer (50) also contains sodium azide.
6. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~ where at least part of the surface of the inner walls of the first compartment (30) are formed from or coated with a material with low surface energy.
7. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~ in which the alkaline buffer (50) is in a gaseous form.
8. (Currently amended) Apparatus according to claim 1 ~~any one of claims 1 to 6~~ in which the alkaline buffer (50) is separated from the protein (20) by a dialysis membrane (60).
9. (Currently amended) Apparatus according to claim 1 ~~any one of the above claims~~ wherein the protein (20) is mixed with an alkaline solution.
10. (Currently amended) Apparatus according to claim 1 ~~the above claims~~ wherein the protein (20) is mixed with at least one alkaline buffer salt or salts.

11. (Original) Apparatus according to claim 10, wherein the at least one alkaline buffer salt or salts also contains sodium azide, phenyl thiourea, sodium cyanide or potassium cyanide.

12. (Currently amended) Apparatus according to claim 9 ~~one of any one of claims 9 to 11~~, wherein the alkaline solution comprises ~~is 0.1 M~~ ammonium hydroxide, ammonium acetate, ammonium formate, ammonium citrate, tris/HCl, PIPES, HEPES, sodium carbonate, potassium carbonate, sodium phosphate, potassium phosphate buffer, or a mixture comprising two or more of the foregoing ~~of these buffer with a pH greater than 7.4~~.

13. (Currently amended) Apparatus according to claim 1 ~~any one of the above claims~~ wherein the pH of the alkaline buffer ~~(50)~~ is greater than 7.4.

14. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~ wherein the concentration of the alkaline buffer ~~(50)~~ or combined buffers is equal to or greater than 0.025M

15. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~ wherein the protein ~~(20)~~ is a natural, regenerated or recombinant protein, a mixture of natural proteins, a mixture of regenerated proteins or a mixture of recombinant proteins.

16. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~ wherein the protein ~~(20)~~ is fibroin or spidroin or a ~~homologue~~ homolog thereof.

17. (Currently amended) Apparatus according to claim 1 ~~any of the above claims~~ wherein the proteins ~~(20)~~ are repetitive amphiphilic block co-polymeric proteins or protein analogs ~~analogues~~ containing charged groups and which are prepared by chemical synthesis or genetic engineering.

18. (Currently amended) Method for the storage of a protein ~~(20)~~ comprising: ~~[[-]]~~ a first step of placing the protein in a first storage compartment ~~(30)~~; ~~[[-]]~~ a second step of exposing the protein ~~(20)~~ to an alkaline buffer ~~(50)~~; and ~~[[-]]~~ a third step of ~~maintaining~~ maintaining the protein ~~(20)~~ in the alkaline environment in the first storage compartment ~~(30)~~.

19. (Currently amended) Method according to claim 18, wherein the period of time for maintaining the protein ~~(20)~~ in the first storage compartment ~~(30)~~ is at least one minute.

20. (Currently amended) Method according to claim 18 ~~or 19~~, wherein the alkaline buffer ~~(50)~~ contains calcium ions.

21. (Currently amended) Method according to claim 18 ~~one of claims 18 to 20~~, wherein the alkaline buffer (50) is selected from the group of alkaline buffers consisting of ammonia solutions, ammonium acetate, ammonium formate, ammonium citrate Tris/HCl, HEPES, PIPES, sodium carbonate, potassium carbonate, sodium phosphate, potassium phosphate and mixtures comprising two or more of the foregoing or a mixture of these buffers.
- 22 (Currently amended) Method according to claim 18 ~~any one of claims 18 to 21~~, wherein the alkaline buffer contains 50-700 mM calcium ions.
23. (Currently amended) Method according to claim 18 ~~any one of claims 18 to 22~~ in which the alkaline buffer (50) is in a gaseous form.
24. (Currently amended) Method according to claim 18 ~~any one of claims 18 to 23~~ in which at least one alkaline buffer salt is added to the protein (20).
- 25 (Currently amended) Method according to claim 24 in which the at least one alkaline buffer salt ~~salts also contain~~ contains sodium azide, phenyl thiourea, sodium cyanide or potassium cyanide.
- 26 (Currently amended) Method according to claim 18 ~~any one of claims 18 to 25~~, wherein the alkaline buffer (50) is separated from the protein by a dialysis membrane (60).
- 27 (Currently amended) Method according to claim 18 ~~any one of claims 18 to 26~~ wherein the pH of the alkaline buffer (50) is greater than 7.4.
28. (Currently amended) Method according to claim 18 ~~any one of claims 18 to 27~~ wherein the protein (20) is mixed with an alkaline solution prior to storage (50).
- 29 (Currently amended) Method according to claim 18 ~~any one of claims 18 to 28~~ wherein the concentration of the alkaline buffer (50) or combined buffers is equal to or greater than 0.025 M.
- 30 (Currently amended) Method according to claim 18 ~~any of claims 18 to 29~~ wherein the protein (20) is a natural, regenerated or recombinant protein, a mixture of natural proteins, a mixture of regenerated proteins or a mixture of recombinant proteins.
31. (Currently amended) Method according to claim 18 ~~any of claims 18 to 30~~ wherein the protein (20) is fibroin or spidroin or a homolog ~~homologue~~ thereof.

32. (New) Method according to claim 18, wherein the protein comprises protein selected from the group consisting of repetitive amphiphilic block co-polymeric proteins and protein analogs containing charged groups.

33. (Canceled)